

Fig. 1

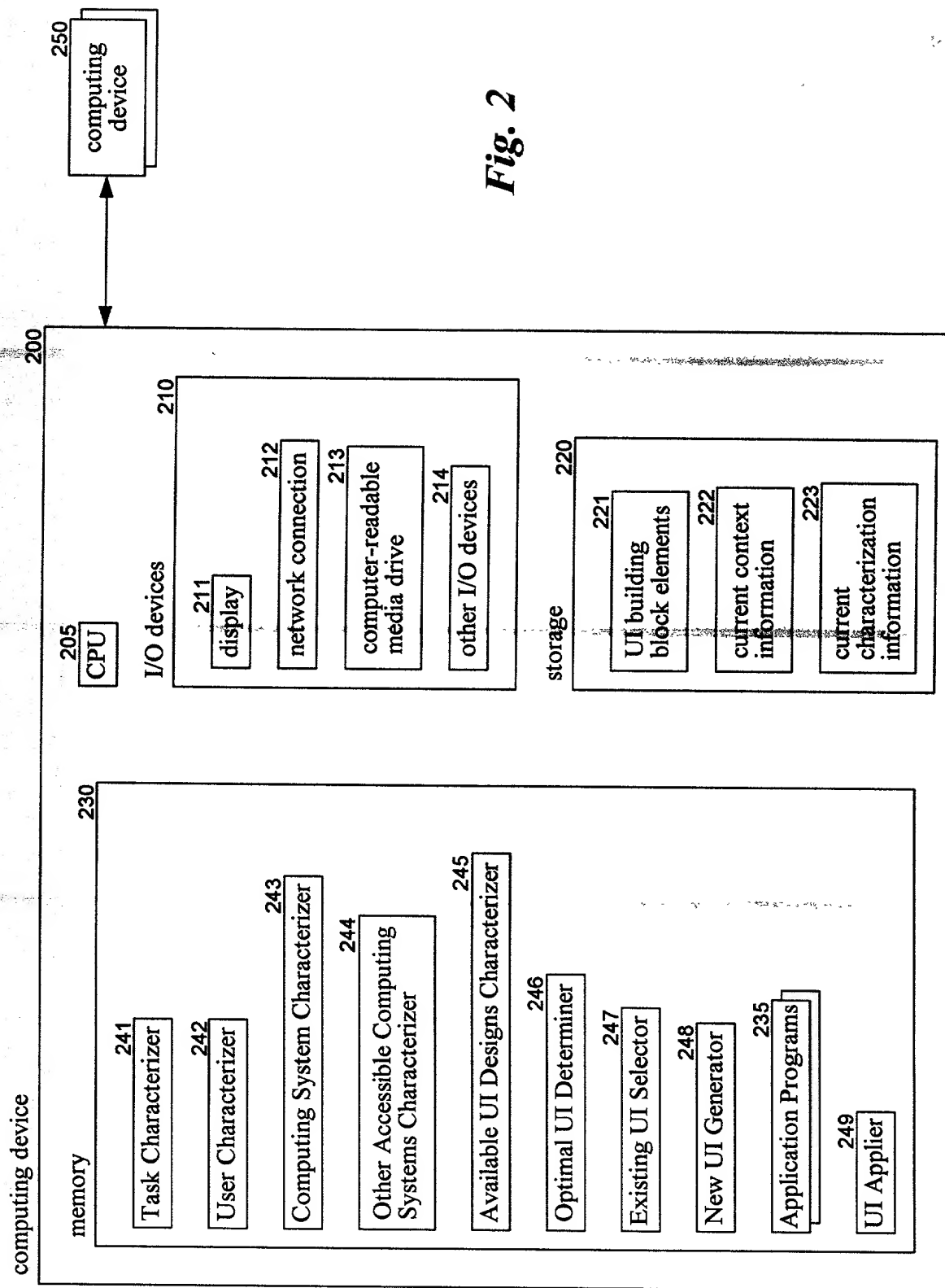


Fig. 2

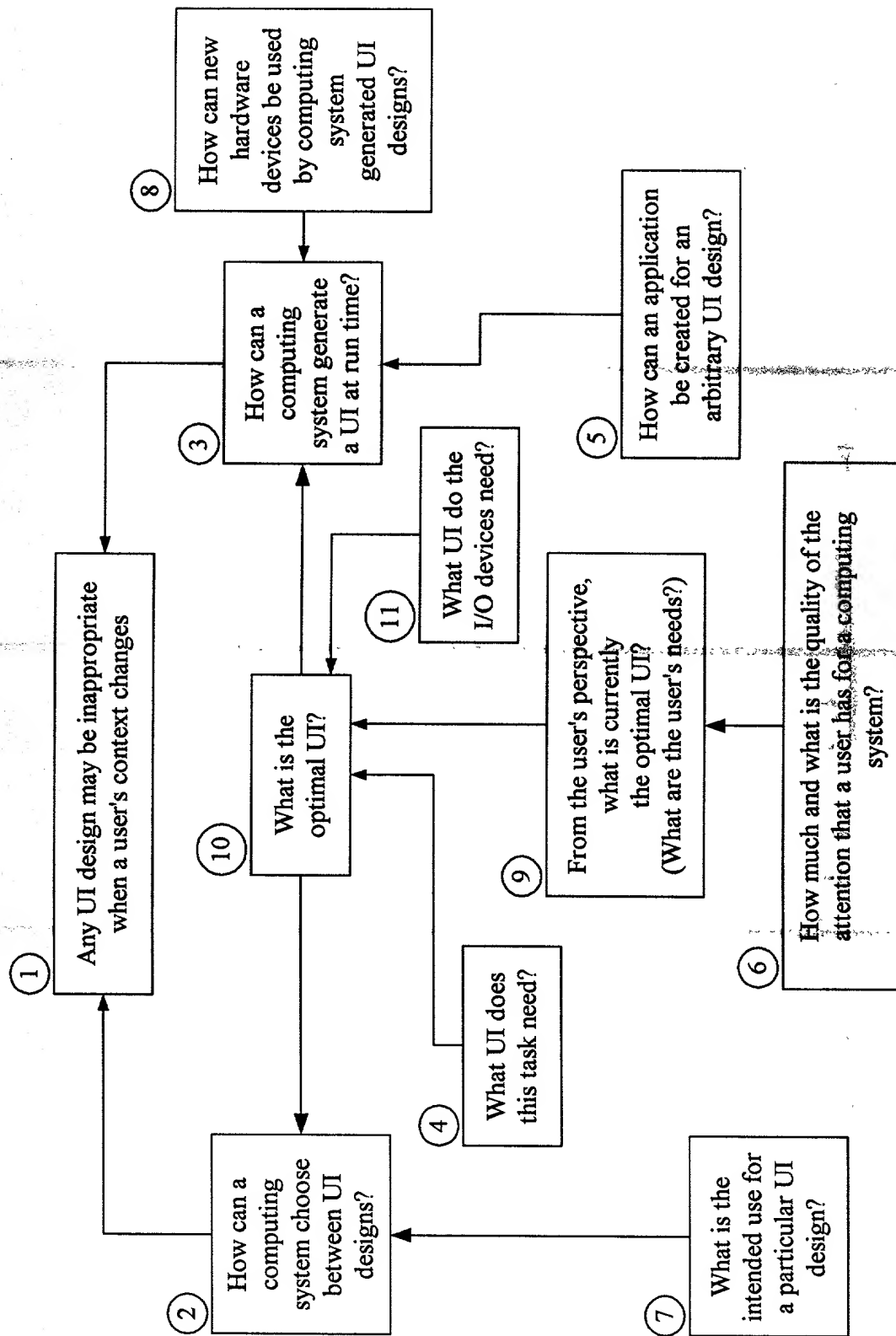


Fig. 3

Optimal UI Requirements

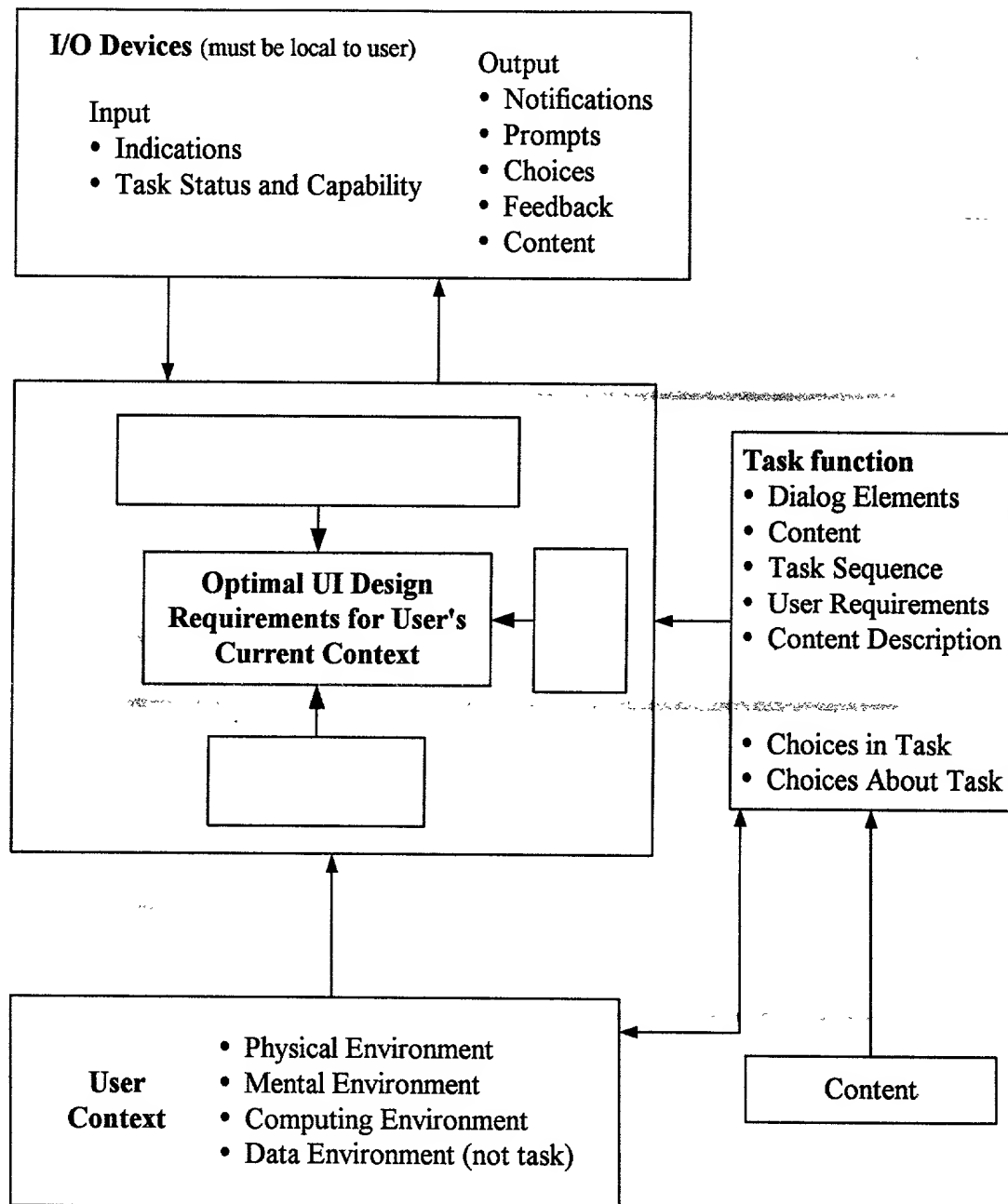


Fig. 4

Design time

Run time

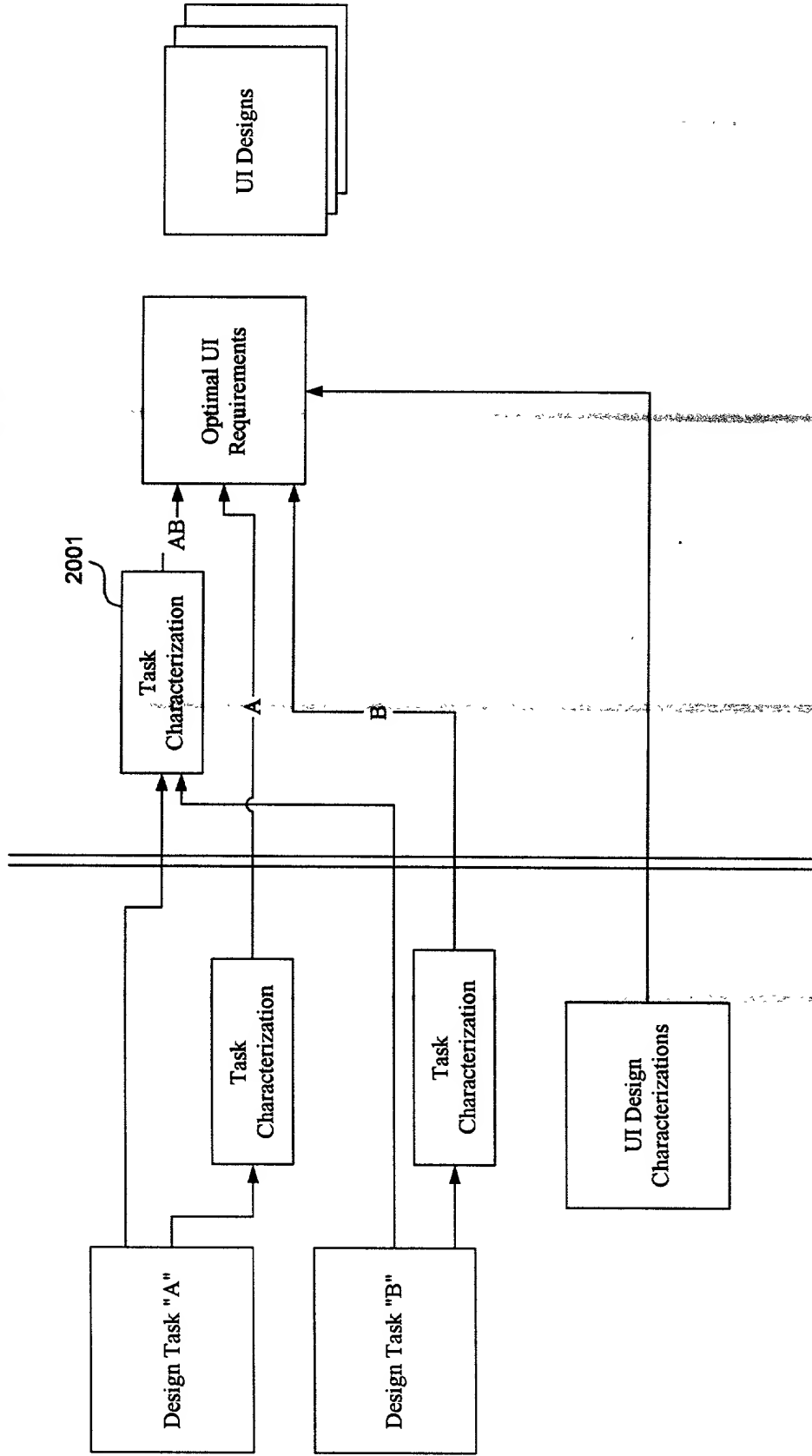


Fig. 5

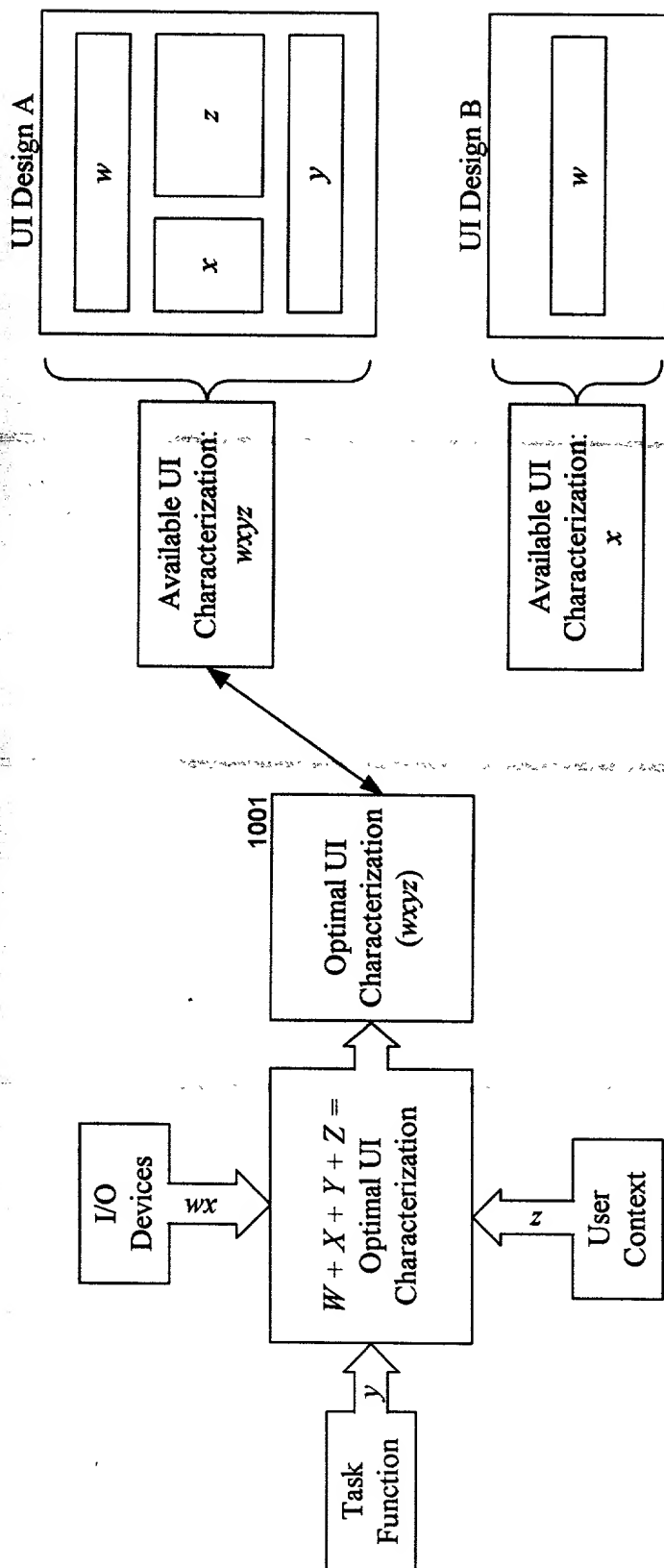


Fig. 6

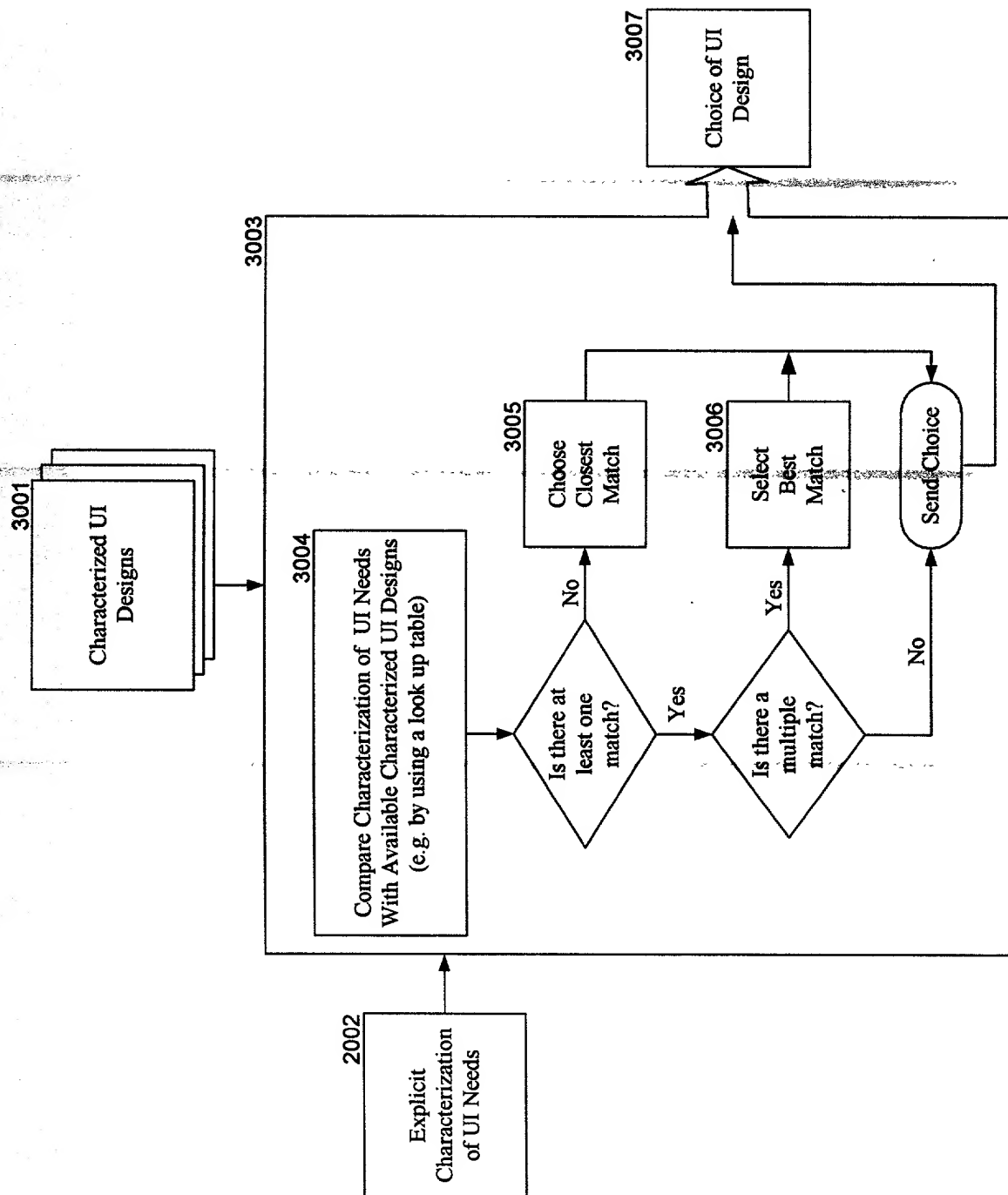


Fig. 7

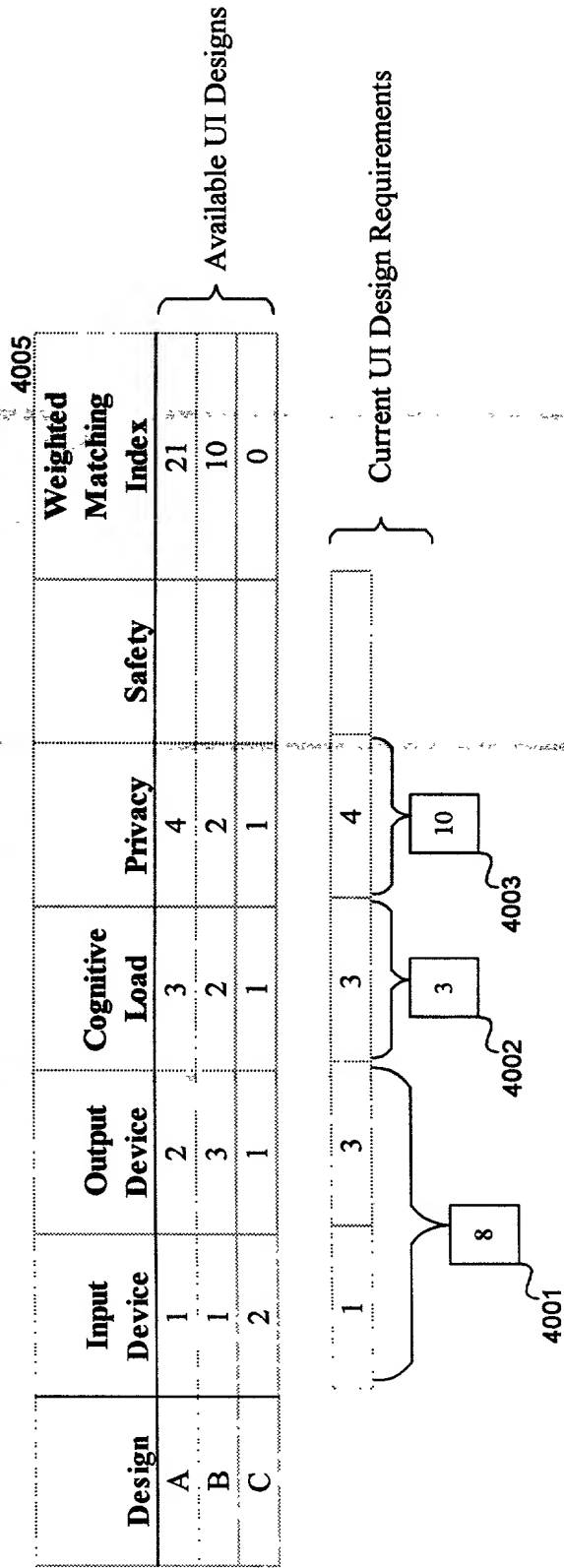


Fig. 8

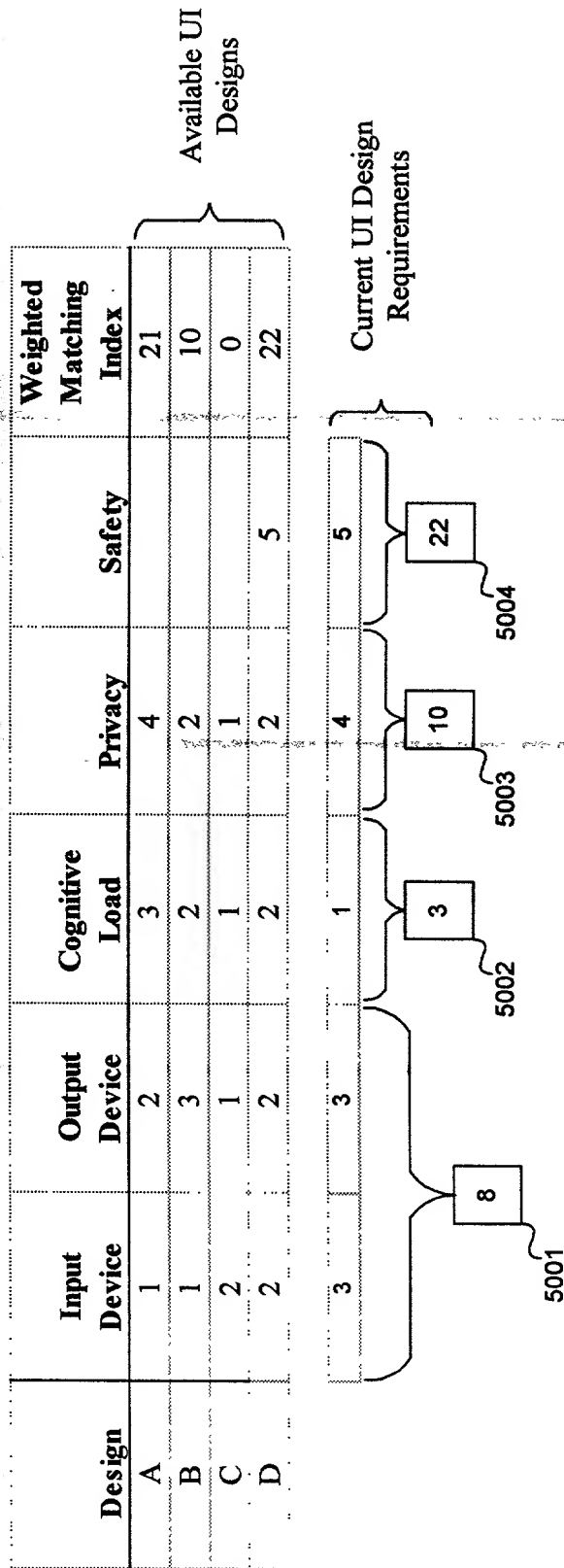


Fig. 9

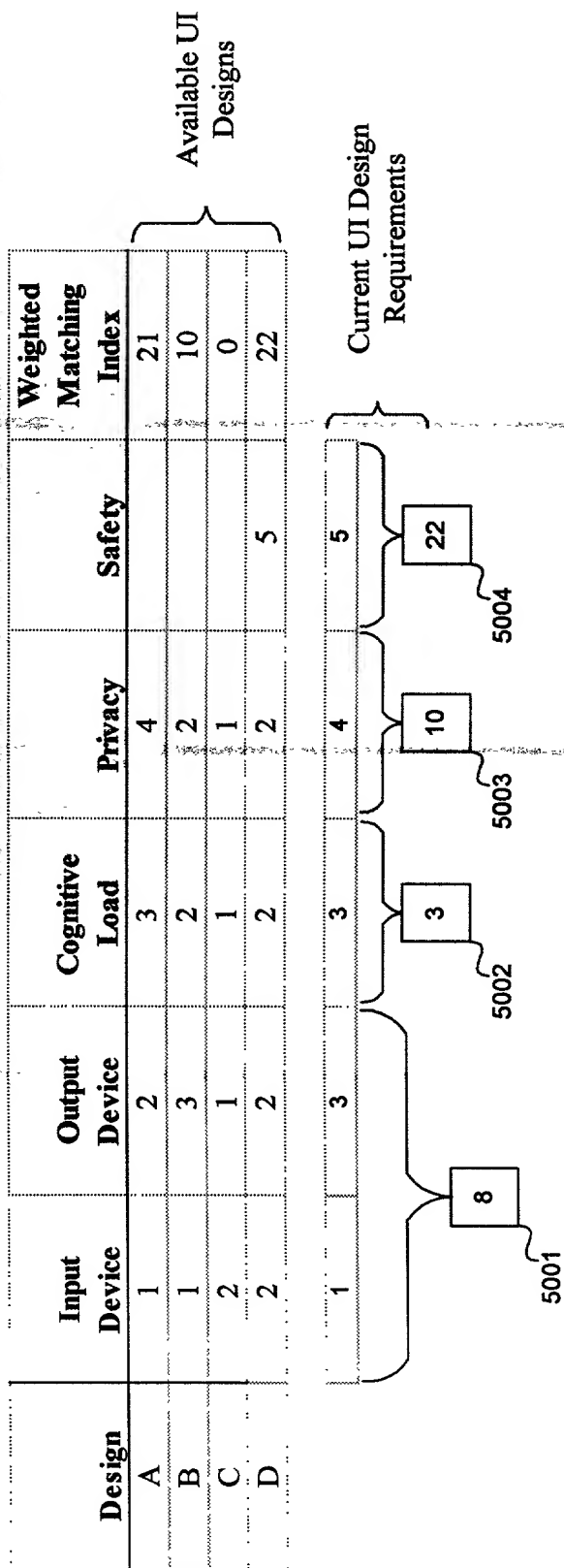


Fig. 10

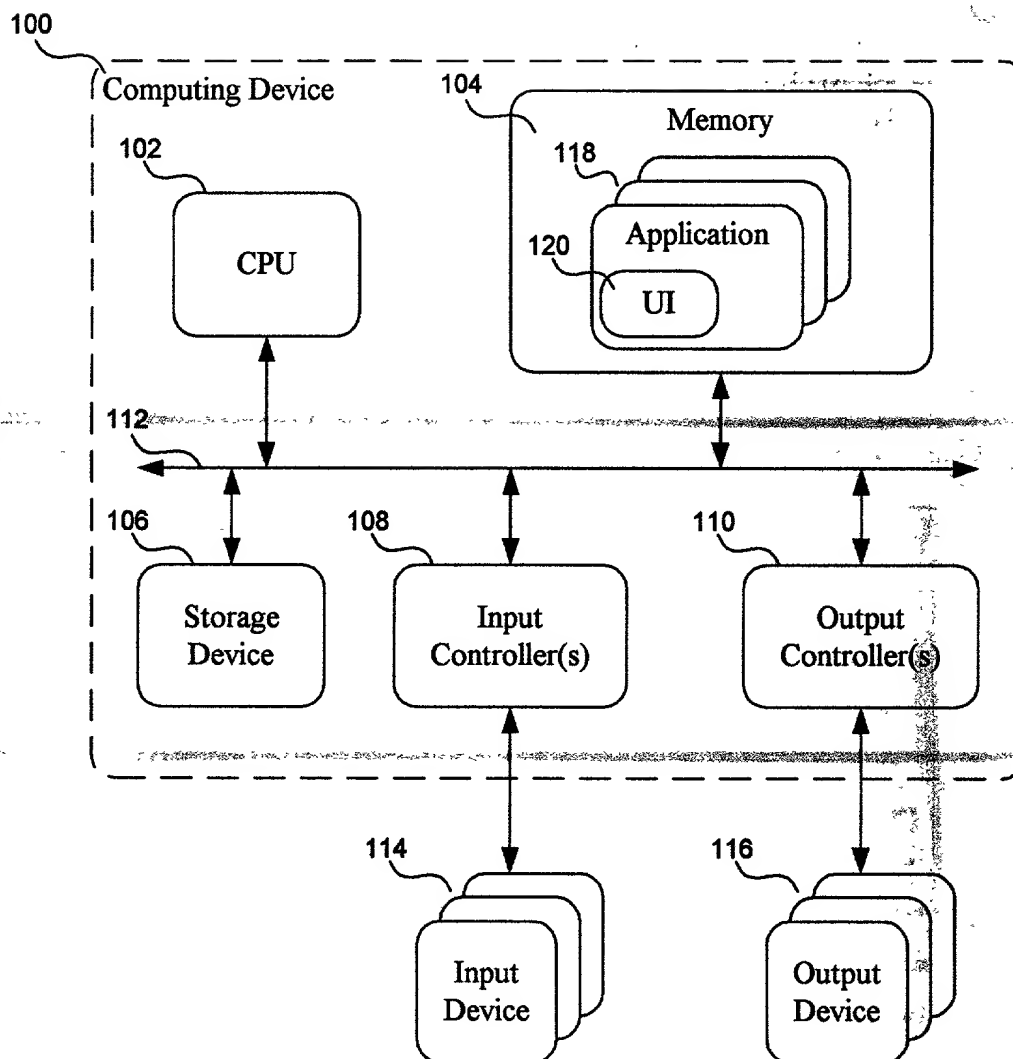


Fig. 11

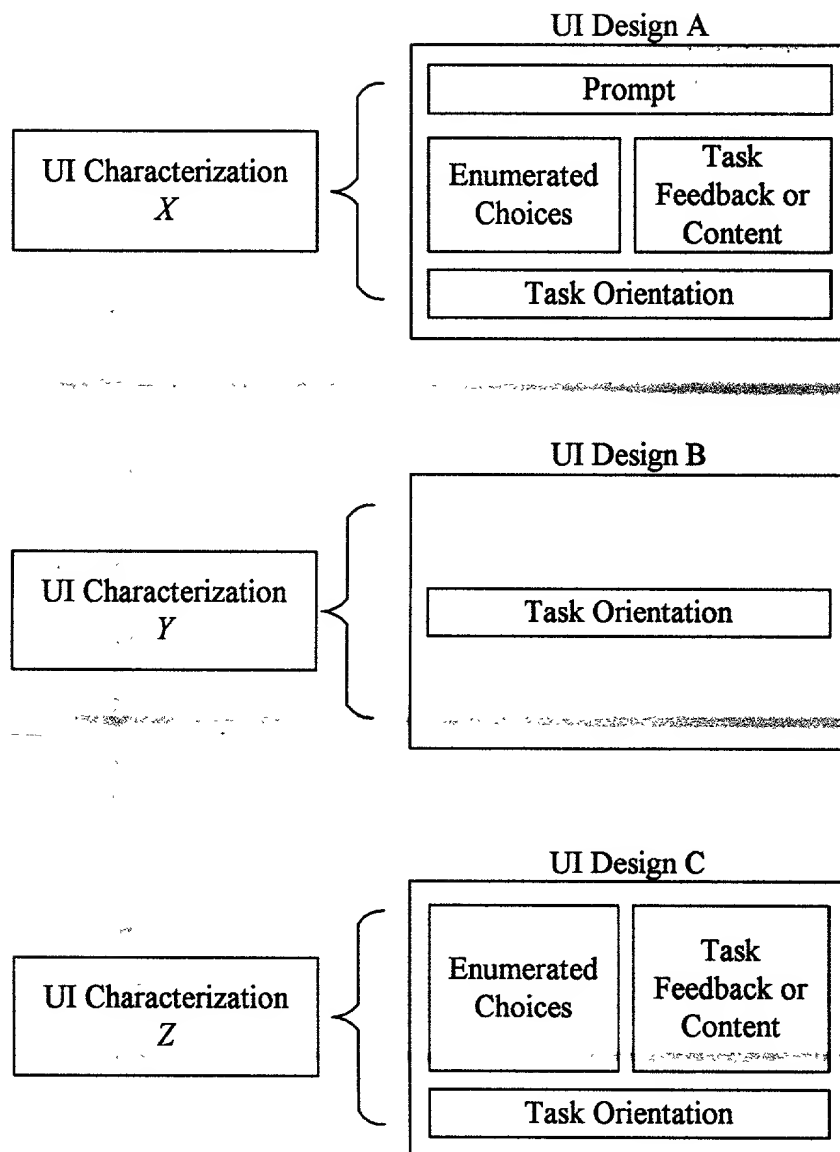
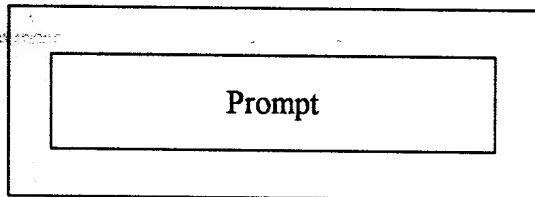
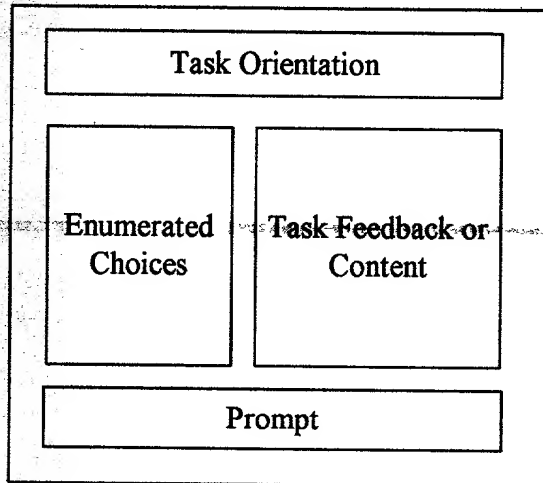
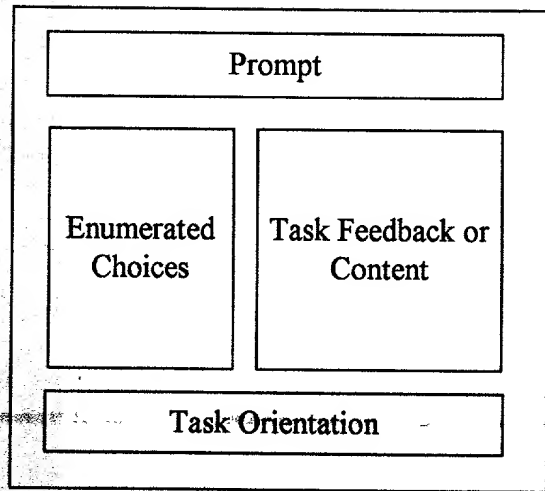


Fig. 12



Three UI Designs
That Members of the
Same UI Family

Fig. 13

Basic Structure

General UI assumption.
So long as something is
specified by the Applet, it's
presented by the UIF.

PROMPT(S)

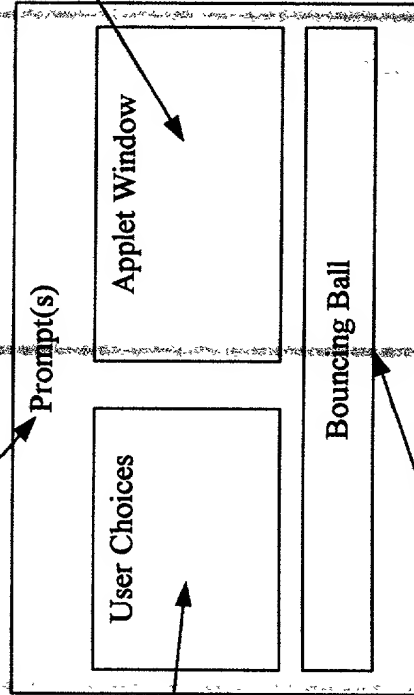
Purpose. The goal plus task. Provide minimal user guidance
about what to do next at each step (state) of the Applet. Can
be audio, video, LCD, etc.

Format. Under UIF's sole control for look, feel, and
interaction. Content of the prompt(s) is provided by the
Applet. How the prompt is presented (what combo at audio,
video, LCD, etc) is ultimately derived from the CM.

USER CHOICES

Purpose. Provide options for user to choose
from to complete each step (state) of the
Applet.

Format. Under UIF's sole control for look,
feel, and interaction. Choices in the list are
received from the Applet. How the choices
are presented (e.g., verbally, visually, etc.) is
ultimately derived from the CM.



APPLET WINDOW

Purpose. To clarify or amplify the
meaning of a choice or state.

Format. Currently specified by Applet
for control for look, feel, and content;
ultimately to be under UIF's sole
control for look, feel, and content as
specified by Applet.

BOUNCING BALL

Purpose. Present all states (steps) of an Applet at once as a
"cheat sheet" of what to do or expect next. For those familiar
with the Applet, the bouncing ball guides the user through the
Applet at a very high level, with a minimum of prompting.

Format. Under UIF's sole control for look, feel, and interaction.
Content of the state label(s) is provided by the Applet. How the
states are presented is ultimately derived from the CM.

Key	
UIF	User Interface Framework
CM	Characterization Module
Applet	Any software developed to run within the Tangis (Product) environment

Fig. 14